

**WHAT IS CLAIMED IS:**

1. A computer implemented method of automatically generating Electronic Data Interchange (EDI) documents comprising the steps of:

receiving a standard data model comprising EDI related data;

generating data definitions for a self-describing markup language

corresponding to each transaction of the EDI related data;

generating self-describing markup language data using a data definition from the generated data definitions for the self-describing markup language corresponding to an EDI transaction and corresponding application data related to EDI; and

automatically generating an EDI document based on the self-describing markup language data.

2. The method according to claim 1, wherein the step of generating data definitions comprises receiving user input of an EDI standard, a version of the standard, a transaction set.

3. The method according to claim 1, wherein the step of generating data definitions comprises receiving a user input of an EDI standard.

4. The method according to claim 1, wherein the step of generating data definitions comprises receiving a user input of a version of a standard.

5. The method according to claim 1, wherein the step of generating data definitions comprises receiving a user input of a transaction set.

6. The method according to claim 1, wherein the step of generating data definitions further comprises generating data definitions for the self-describing markup

language, a data model to read in data, a data model to read out data, and a map component file.

7. The method according to claim 1, wherein the step of generating data definitions further comprises generating a data model to read in data.

8. The method according to claim 1, wherein the step of generating data definitions further comprises generating a data model to read out data.

9. The method according to claim 1, wherein the step of generating data definitions further comprises generating a map component file.

10. The method according to claim 1, wherein the generated EDI document conforms to an ANSI X12 standard.

11. The method according to claim 1, wherein the generated EDI document conforms to an UN EDIFACT standard.

12. The method according to claim 1, wherein the self-describing markup language comprises eXtensible Markup Language (XML).

13. A system for automatically generating Electronic Data Interchange (EDI) documents, the system comprising:

a standard data model comprising EDI related data;

a first generator that generates data definitions for a self-describing markup language corresponding to each transaction of the EDI related data;

a second generator that generates self-describing markup language data using a data definition for the self-describing markup language corresponding to an EDI transaction and corresponding application data related to the EDI; and

a translator that automatically generates an EDI document based on the self-describing mark up language data.

14. The system according to claim 13, wherein the self-describing markup language comprises XML and wherein the first generator is a Data Type Definition Generator (DTD Generator).

15. The system according to claim 13, wherein the first generator generates data definitions for the self-describing markup language, a data model to read in data, a data model to read out data, and a map component file.

16. The system according to claim 13, wherein the first generator generates a data model to read in data.

17. The system according to claim 13, wherein the first generator generates a data model to read out data.

18. The system according to claim 13, wherein the first generator generates a map component file.

19. The system according to claim 13, wherein the first generator further comprises a user interface for user input of an EDI standard, a version of the standard, and a transaction set prior to generating the EDI document.

20. The system according to claim 13, wherein the first generator further comprises a user interface for user input of an EDI standard prior to generating the EDI document.

21. The system according to claim 13, wherein the first generator further comprises a user interface for user input of a version of the standard prior to generating the EDI document.

22. The system according to claim 13, wherein the first generator further comprises a user interface for user input a transaction set prior to generating the EDI document.

23. The system according to claim 13, wherein the generated EDI document conforms to an ANSI X12 standard.

24. The system according to claim 13, wherein the generated EDI document conforms to an UN EDIFACT standard.

25. The system according to claim 13, wherein the self-describing markup language comprises eXtensible Markup Language (XML).

26. A system for automatically generating Electronic Data Interchange (EDI) documents, the system comprising:

means for receiving a standard data model containing EDI related data;

means for generating data definitions for a self-describing markup language corresponding to each transaction of the EDI related data;

means for generating self-describing markup language data using a data definition for the self-describing markup language corresponding to an EDI transaction and corresponding application data related to EDI; and

means for automatically generating an EDI document based on the self-describing markup language data.

27. A computer program product having program code that is executable by a computer for generating Electronic Data Interchange (EDI) documents, the program code configured to cause the computer to perform the following steps:

receiving a standard data model comprising EDI related data;

generating data definitions for a self-describing markup language corresponding to each transaction of the EDI related data;

generating self-describing markup language data using a data definition for the self-describing markup language corresponding to an EDI transaction and corresponding application data related to EDI; and

automatically generating an EDI document based on the self-describing markup language data.

28. The program product according to claim 27, wherein the self-describing markup language comprises XML and wherein the first generator comprises a Data Type Definition Generator (DTD Generator).

29. The program product according to claim 27, wherein the step of generating data definitions further comprises generating data definitions for the self-describing markup language, a data model to read in data, a data model to read out data, and a map component file.

30. The program product according to claim 27, wherein the step of generating data definitions further comprises generating a data model to read in data.

31. The program product according to claim 27, wherein the step of generating data definitions further comprises generating a data model to read out data.

32. The program product according to claim 27, wherein the step of generating data definitions further comprises generating a map component file.

33. The program product according to claim 27, wherein the step of generating data definitions comprises receiving user input of an EDI standard, a version of the standard, and a transaction.

34. The program product according to claim 27, wherein the step of generating data definitions comprises receiving user input of an EDI standard.

35. The program product according to claim 34, wherein the step of generating data definitions comprises receiving user input of the version of the EDI standard.

36. The program product according to claim 27, wherein the generated EDI document conforms to the ANSI X12 standard.

37. The program product according to claim 27, wherein the generated EDI document conforms to the UN EDIFACT standard.

38. The program product according to claim 27, wherein the self-describing markup language comprises eXtensible Markup Language (XML).

39. A computer implemented method of automatically generating Electronic Data Interchange (EDI) documents comprising the steps of:

receiving a standard data model containing EDI related data;

receiving a manual entry of parameters related to an EDI document format;

generating data definitions for the self-describing markup language

corresponding to each transaction of the EDI related data and the received manually entered parameters; and

generating self-describing markup language data using the data definition for the self-describing markup language corresponding to an EDI transaction and corresponding application data related to EDI; and

automatically generating an EDI document based on the self-describing markup language data.

40. The method according to claim 39, wherein the step of generating data definitions further comprises generating data definitions for the self-describing markup

language, a data model to read in data, a data model to read out data, and a map component file.

41. The method according to claim 39, wherein the step of generating data definitions further comprises generating a data model to read in data.

42. The method according to claim 39, wherein the step of generating data definitions further comprises generating a data model to read out data.

43. The method according to claim 39, wherein the step of generating data definitions further comprises generating a map component file.

44. The method according to claim 39, wherein the step of receiving a manual entry of parameters comprises receiving user input of an EDI standard, a version of the standard, a transaction set, and a direction.

45. The method according to claim 39, wherein the step of receiving a manual entry of parameters comprises receiving user input of an EDI standard.

46. The method according to claim 39, wherein the step of receiving a manual entry of parameters comprises receiving user input of a version of the EDI standard.

47. The method according to claim 39, wherein the step of receiving a manual entry of parameters comprises receiving user input of a transaction set.

48. The method according to claim 39, further comprising one data type definition for each transaction of each EDI standard used when generating EDI documents.

49. A computer implemented method of automatically generating data in a self-describing markup language format from received EDI data, comprising the steps of:  
receiving EDI data from a component;

retrieving a self-describing markup language data definition corresponding to a transaction type of received EDI data; and

automatically generating self-describing markup language data based on the received EDI data and the self-describing markup language data definition.

50. The method according to claim 49, further comprising, prior to said receiving step, generating data definitions corresponding to each transaction type.

51. The method according to claim 49, further comprising, prior to said retrieving step, receiving user input of an EDI standard, a version of the standard, and a transaction set in generating the self-describing markup language data definition.

52. The method according to claim 49, further comprising, prior to said retrieving step, receiving a user input of an EDI standard in generating the self-describing markup language data definition.

53. The method according to claim 52, further comprising, prior to said retrieving step, receiving a user input of a version of the EDI standard in generating the self-describing markup language data definition.

54. The method according to claim 49, further comprising, prior to said retrieving step, receiving a user input of a transaction set in generating the self-describing markup language data definition.

55. The method according to claim 49, wherein the received EDI data conforms to the ANSI X12 standard.

56. The method according to claim 49, wherein the received EDI data conforms to the UN EDIFACT standard.

57. The method according to claim 49, wherein the generated self-describing markup language comprises eXtensible Markup Language (XML).



58. A system for automatically generating data in a self-describing markup language format from received EDI data, the system comprising:

a component for transmitting EDI data;

a receiver that receives a self-describing markup language data definition corresponding to a transaction type of received EDI data; and

a translator that automatically generates the self-describing markup language data based on the received EDI data and the self-describing markup language data definitions.

59. The system according to claim 58, wherein the receiver receives the self-describing markup language data definition generated by a generator.

60. The system according to claim 58, wherein the generator further comprises a user interface for user input of an EDI standard, a version of the standard, and a transaction set prior to generating the self-describing markup language format.

61. The system according to claim 58, wherein the generator further comprises a user interface for user input of an EDI standard prior to generating the self-describing markup language format.

62. The system according to claim 61, wherein the generator further comprises a user interface for user input of a version of the EDI standard prior to generating the self-describing markup language format.

63. The system according to claim 58, wherein the generator further comprises a user interface for user input of a transaction set prior to generating the self-describing markup language format.

64. A computer program product having program code that is executable by a computer for automatically generating data in a self-describing markup language data

from received EDI data, the program code configured to cause the computer to perform the following steps:

receiving EDI data from a component;

retrieving a self-describing markup language data definition corresponding to a transaction type of received EDI data; and

automatically generating the self-describing markup language data based on the received EDI data and the self-describing markup language data definition.

65. The program product according to claim 64, further comprising, prior to said receiving step, generating data definitions corresponding to each transaction type in generating the self-describing markup language data definition.

66. The program product according to claim 64, further comprising, prior to said retrieving step, receiving user input of an EDI standard, a version of the standard, and a transaction set in generating the self-describing markup language data definition.

67. The program product according to claim 64, further comprising, prior to said retrieving step, receiving user input of an EDI standard in generating the self-describing markup language data definition.

68. The program product according to claim 67, further comprising, prior to said retrieving step, receiving user input of the version of the EDI standard in generating the self-describing markup language data definition.

69. The program product according to claim 64, further comprising, prior to said retrieving step, user input of a transaction set in generating the self-describing markup language data definition.

70. The program product according to claim 64, wherein the received EDI data conforms to the ANSI X12 standard.

71. The program product according to claim 64, wherein the received EDI data conforms to the UN EDIFACT standard.

72. The program product according to claim 64, wherein the generated self-describing markup language comprises eXtensible Markup Language (XML).

73. A system for automatically generating data in a self-describing markup language format from received EDI data, the system comprising:

means for receiving EDI data from a component;

means for retrieving a self-describing markup language data definition corresponding to a transaction type of received EDI data; and

means for automatically generating the self-describing markup language data from the received EDI data and self-describing markup language data definition.

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